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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/927,416	08/10/2001	Alex S. Goldenberg	IMM115A	6403

7590 06/30/2006

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EXAMINER

HAN, YOUNGHUIE JESSICA

ART UNIT	PAPER NUMBER
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2838

DATE MAILED: 06/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Office Action Summary</p>	Application No. 09/927,416		Applicant(s) GOLDENBERG ET AL.	
	Examiner Y. J. Han		Art Unit 2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/6/05 & 4/6/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, and 3-9, 11-12, 14-17, 19, 20, and 22-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Spillner et al (6,236,178).

Spillner et al discloses a method comprising calculating an average energy input (current input) to an actuator (electric motor) coupled to a haptic-feedback device (power-assisted steering system) over a predetermined period of time; and reducing a maximum allowable current level in the actuator if the average energy input to the actuator exceeds a predetermined warning energy level. Spillner et al discloses a method for limiting the hydraulic maximum pressure of a power-assisted steering system whose hydraulic pump is driven by an electric motor wherein the upper limit value for the hydraulic maximum pressure is predefined. If the upper limit value is exceeded, the current input is reduced. Note that the maximum pressure is adjustable, and such feature reads on the multiple current levels. As for the current level being gradually reduced as a ramp function, see Figures 1 and 2.

3. Claims 20-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Takita (4,954,907).

Takita discloses a method comprising calculating an average energy input (current value applied to the head driving means) to an actuator (head driving means) over a predetermined period of time (sampling); reducing the maximum allowable current level in the actuator if the average energy input to the actuator exceeds a predetermined warning energy level; and increasing the maximum allowable current level in the actuator if the average energy input to the actuator is below the predetermined warning energy level, wherein the maximum allowable current level is not above a current level allowed by the actuator (see current value setting means 1, basic current value providing means 2, corrected current value providing means 3); and the average energy input to the actuator is calculated by repeatedly moving an energy window by a predetermined timeslice and determining an intermediate average energy input to the actuator within the energy window after each of the movements. See Figures 4 and 8.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 13, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spillner et al (6,236,178) in view of Takita (4,954,907).

Spillner et al discloses the invention substantially as claimed except for the calculation of the input current by repeatedly moving an energy window by a predetermined timeslice and determining an intermediate average input current to the actuator within the energy window after each of the movements. Takita teaches that the use of such sampling of the input current is well

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known in the art. Thus, it would have obvious to one having ordinary skill in the art employ the current sampling technique of Takita in Spillner et al to obtain the claimed invention for the purpose of achieving compact and efficient current sensing circuit.

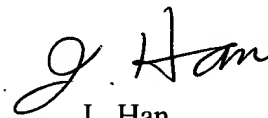
6. Claims 10 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spillner et al in view of Cilluffo (6,078,160).

7. Spillner et al discloses the invention substantially as claimed except for the positive temperature coefficient resettable fuse. Cilluffo teaches clearly that the use of such feature is well known in the art. PTC devices are commonly placed in series with a load to act as a resettable fuse because the non-linear characteristics of a PTC device make it useful in circuit arrangements in which the PTC device is used. Thus, it would have obvious to one having ordinary skill in the art employ the PTC current sensor of Cilluffo in Spillner et al to obtain the claimed invention for the purpose of achieving an efficient current sensor which coordinate well with other circuit devices to control the state of the circuit.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Y. J. Han whose telephone number is 571-272-2078. The examiner can normally be reached on Mon-Fri 6:30am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl Easthom can be reached on 571-272-1989. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read "J. Han".

J. Han
Primary Examiner
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